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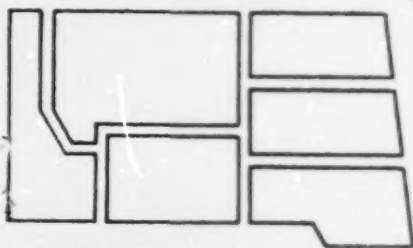
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ABSTRACT

A study was conducted to determine if the pre-center incomes/salaries could predict the post-center salaries of participants in the Mountain-Plains program, a residential, family-based education program developed to improve the economic potential and lifestyle of selected student families in a six-state area. By using the reported family income for the twelve-month period before entering the program and the salary of the last job held before entering the program, the study attempted to predict six-month post-center salaries. The resulting analysis found statistically significant relationships between pre-center information and post-center information for some states, but inclusively there were no significant correlations between pre-center and post-center figures. However, the monetary gains proved to be significant when pre-center salary was contrasted with six-month post-center salary. It was concluded that controls need to be applied to pre-center incomes/salaries to insure the economic success currently being experienced by the Mountain-Plains graduates. (A related study which examines the use of biographical data in predicting program success/completion is reported in a separate document, CE 014 656.) (Author/BM)

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REGRESSION ANALYSIS OF PRE & POST-CENTER INCOMES FOR STATE OF RELOCATION: CAN PRE- CENTER INCOME/SALARY PREDICT POST-CENTER SALARIES?

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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ABSTRACT

The use of biographical data to predict job related characteristics has been examined by a number of independent organizations with some degree of success. Mountain-Plains attempted to apply pre-center characteristics to predict program completion in an earlier report, which concluded that pre-center characteristics could not predict the successful completion of students at Mountain-Plains. The subject of this report is an attempt to predict six month post-center salaries by using the reported family income for the 12 month period before entering the Mountain-Plains Program and salary on the last job held before entering the program. The resulting analysis found statistically significant relationships between pre-center information and post-center information for some states, but inclusively there were no significant correlations between pre-center and post-center figures. The monetary gains proved to be significant when pre-center salary was contrasted with six month post-center salary. The report concludes, since pre-center income is not a useful variable to predict post-center income, that controls need to be applied to pre-center incomes and salaries to insure the economic success currently being enjoyed by the Mountain-Plains graduates.

REGRESSION ANALYSIS OF PRE AND POST-CENTER INCOMES
BY STATE OF RELOCATION: CAN PRE-CENTER INCOME/SALARY
PREDICT POST-CENTER SALARIES?

INTRODUCTION

Analysis attempting to predict success at Mountain-Plains, success in negotiating the program, in particular, through the use of pre-center characteristics, has produced little in the form of useable results (Myers, 1976). Other research in the area of biographic data does support the hypothesis that biographic data can predict certain future behavior, specifically, work related variables (Richardson, Bellows, Henry & Co., 1975). The two references noted above appear to be contradictory; further examination is needed. The population that the Mountain-Plains Program serves is distinctive in demographic characteristics, (for demographic characteristics note Myers and Honrud, 1974) as well as psychological profiles (Conrad and McMahon, 1974). The success of the program, as outlined in the 1976 funding proposal (Mountain-Plains Press, 1975), indicated the success experienced by Mountain-Plains students was substantial. The area of economic increases was noted as being of primary importance and equally displayed significant increases from pre-center to post-center. The monetary gains have caused considerable speculation as to what influenced post-center salaries. The subject of this report is to examine two possible sources of predicting post-center salary, income for the 12 month period before entering the program and the salary on the last employment before entering Mountain-Plains.

METHODOLOGY

The sample was composed of 58 HOH students who completed an occupational area during the months of May, June, July and August of 1975.

Procedures

An examination of exits to each state as well as the total sample was conducted using coefficients of correlation to determine if significant relationships between the variable exist. A T test was used to determine if significant gains were made between pre-center salary and post-center salary. The data was collected as the students reached six months out of the program to ensure comparability of the sample data and to reduce any initial placement effect that may be present.

RESULTS

The total sample was examined for relationships between pre-center salary/income and six month post-center salary. Table 1 displays results of this composite comparison.

Table 1

Pre-center yearly income - post center salary	Pre-salary - Post salary
$r = .0668$ $r^2 = .0045$ $p = > .10$ $df = 48$	$r = .2063$ $r^2 = .0426$ $p = > .10$ $df = 51$

Neither reported annual income nor salary on the last employment, proved to be significantly related to post-center salary. Each state was examined to determine if significant gains were made from pre-center salary to post-center salary.

Table II displays the means, standard deviation and correlation coefficients for each respective state and the total.

TABLE II

STATE	Pre Income			Pre Salary			Post Salary			r Pre-Inc. Pre-Sal.	r Pre-Inc. Post Sal.	r Pre-Sal. Post Sal.
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N			
Idaho	2841.50	2260.15	7	652.67	349.36	6	667.33	39.71	6	+.756*	-.844*	+.1196
Montana	3055.11	1150.38	9	553.11	194.81	9	516.00	233.765	9	+.1688	-.0799	+.1150
Nebraska	5166.31	4180.56	13	435.08	101.26	13	533.08	143.02	12	+.2513	+.1460	+.5554*
North Dakota	3990.77	2360.90	13	402.00	157.62	10	607.00	158.61	11	+.6620*	+.5209*	+.5573*
South Dakota	4205.55	2112.04	11	482.91	134.18	11	555.58	99.69	12	+.6355*	-.1724	+.1423
Wyoming	5406.50	1288.25	8	495.63	185.16	8	695.71	185.77	7	+.5321	+.4188	-.1326
Total	4195.76	2389.09	61	488.55	186.18	57	583.49	155.80	57	N.A.	+.0668	+.2063

*Probability less than .05 (one tailed).

The diversity of annual income means range from a high of \$5,406.50 to a low of \$2,841.50, which is sizeable and attests to between group variations. The reader must be cautioned as the standard error of the mean (not displayed) was critically high in a number of cases. The correlations between pre-center income and pre-center salary were expected to be relatively high, which they were. The significant negative correlation for pre-center income and post-center salary in the state of Idaho was surprising, but the positive correlation between pre-salary and post-salary indicates a general consistency across the six states.

Table III indicates the results of T tests computed between pre-center and post-center salaries.

Table III
Pre-Salary - Post-Salary T (one tailed)

	<u>Idaho</u>	<u>Montana</u>	<u>Nebraska</u>	<u>N. Dakota</u>	<u>S. Dakota</u>	<u>Wyoming</u>	<u>Total</u>
T	.092	-2.60	1.413	2.099	1.050	1.478	2.096
P	>.10	>.10	>.05	>.025	>.20	>.10	>.01
DF	5	8	11	10	11	7	56

The T test analysis indicated that several states approached significant salary increases, while only North Dakota exceeded the .05 level of probability. The results are not overly reliable when examined at the state level, however the composite values did provide a significant increase from pre to post with high reliability.

DISCUSSION

The analysis was hindered to some extent by the small N available for examination by state. The correlation coefficients were not significant for the total sample, although a significant improvement was indicated by the T test. The accountability of such increases of significant levels will need to be justified by variables other than pre-center salary figures. The most likely source of such variables would be within the program itself.

FORMATIVE IMPLICATIONS

The pre-center salaries were found to be exceptionally high for this sample. Recent placement reports (Myers, 1976) have found that initial placement no longer increases the students salary in comparison to pre-center salary, and it may take several months for him to achieve a monthly salary equal to that of his last job before entering the Mountain-Plains Program. This fact simply stated is: If a restriction is not placed on pre-center income and enforced properly, the effectiveness of Mountain-Plains to improve the economic conditions of the population it serves will be initially limited, and, in addition, a less "disadvantaged" population may possibly be served, with possibly little benefit, while a significantly "disadvantaged" poor may continually be neglected.

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